



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

*Handwritten signature/initials*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,524	02/11/2005	Michael Menth	2002P13078WOUS	1137

7590 10/29/2007  
Siemens Corporation  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER

ELPENORD, CANDAL

ART UNIT	PAPER NUMBER
----------	--------------

2616

MAIL DATE	DELIVERY MODE
-----------	---------------

10/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/524,524

**Applicant(s)**

MENTH, MICHAEL

**Examiner**

Candal Elpenord

**Art Unit**

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11 February 2005 and 11 April 2005.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because Fig. 1 should be labeled with descriptive legends. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37

Art Unit: 2616

CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

### ***Abstract***

3. The abstract of the disclosure is objected to because improper language and too many words. The occurrence of legal phraseology "means" recited in lines 3, 10, and 15. Correction is required. See MPEP § 608.01(b).

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "the," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 12-14, 29-31** are rejected under 35 U.S.C. 102(e) as being anticipated by Medhat et al (US 6,314,103 B1).

**Regarding claim 12**, Medhat et al. discloses a method ("under allocate and re-allocate of bandwidth", recited in col. 4, lines 14-23 and method/systems, recited in col. 2, lines 19) for limiting traffic ("tracking bandwidth usage between virtual paths and ATM devices", recited in col. 7, lines 6-13) in a packet-oriented network (fig. 2, Telecommunication system 102, recited in col. 14, lines 5-18 and ATM network, recited in col. 6, lines 61-67), having a plurality of links ("plurality of virtual paths", recited in col. 2, lines 30-37), the method comprising: performing an admissibility check ("call admission control", recited in column 31-40 and "bandwidth allocation", recited in col. 7, lines 6-12) for a group of data packets of a flow ("plurality of calls", recited in column 12, lines 16-25) to be transmitted via the network (fig. 2, Telecommunication system 102, recited in col. 14, lines 5-18), wherein the admissibility check ("call admission control", recited in column 31-40) is performed on the basis of a threshold value ("bandwidth limit", recited in col. 7, lines 50-53 and threshold amount of bandwidth is reached", recited in col. 15, lines 44-50) for the traffic volume between the network ingress node (fig. 2, Communication Device 102, recited in col. 14, lines 19-31) and the network egress node (fig. 2, Communication Device 218, recited in col. 14, lines 19-31) of the flow, and wherein the transmission of the group of data packets ("plurality of calls", recited in column 12, lines 16-25) is not allowed if an authorization ("negotiated traffic parameters at call set-up", recited in col. 8, lines 42-53) of the transmission would lead to a traffic volume exceeding the threshold value ("monitor and supervise of traffic

volume and subsequent removing of connection when negotiated traffic parameters are violated", recited in col. 8, lines 42-53).

**Regarding claim 13**, Medhat et al. discloses the method ("system and method for allocating bandwidth", recited in abstract, lines 1-11), wherein for all pairs of network ingress nodes (fig. 2, Communication Device 102, recited in col. 14, lines 19-31) and network egress nodes (fig. 2, Communication Device 218, recited in col. 14, lines 19-31) threshold values ("bandwidth limit", recited in col. 7, lines 50-53) are defined for the traffic volume ("user communications/ATM cells in the form of calls, recited in col. 16, lines 34-52) between each node pair (fig.1, Bandwidth Allocation System, "allocates bandwidth between ATM devices" col. 7, lines 54-62).

**Regarding claim 14**, the method ("under allocate and re-allocate of bandwidth", recited in col. 4, lines 14-23), wherein the threshold values ("bandwidth limit", recited in col. 7, lines 50-53) for the traffic volume between pairs of network ingress nodes (fig. 2, Communication Device 102, recited in col. 14, lines 19-31) and network egress nodes (fig. 2, Communication Device 218, recited in col. 14, lines 19-31) are placed in relation to the traffic volume ("allocation of Virtual Circuit and tracking by the signal processor", recited in column 11, lines 39-67 and "consumed VC, recited in col. 12, lines 1-4 and "user communications/ATM cells in the form of calls, recited in col. 16, lines 34-52) on the links ("plurality of virtual paths", recited in col. 11, lines 33-38) of the network (fig. 2, Telecommunication system 102, recited in col. 14, lines 5-18), and wherein the threshold values ("bandwidth limit", recited in col. 7, lines 50-53 and "bandwidth up to the level", recited in col. 13, lines 61-63) for the traffic volume ("dynamic assignment of

bandwidth to Virtual Circuit/Virtual Path when under-allocation level is reached", recited in col. 15, lines 17-25) between network ingress nodes and network egress nodes are defined by means of values for maximum traffic volumes ("use of all available bandwidth in the bandwidth allocating systems", recited in col. 15, lines 25-50) on the links ("virtual paths", recited in col. 15, lines 25-50 and fig. 2, Links 230, 234) of the network (fig. 1 Telecommunication Systems 102).

**Regarding claim 29**, Medhat et al. discloses the method ("system and method for allocating bandwidth", recited in abstract, lines 1-11) further comprising: determining limits ("determining current usage and availability of virtual circuits/virtual paths", recited in col. 14, lines 53-58-the traffic is carried in the virtual circuit) for each of a plurality of possible problem situations ("under allocated virtual path reaches critical point", recited in col. 3, lines 27-52 and "violation of negotiated traffic parameters", recited in col. 8, lines 46-48) which limits cause the traffic volume ("user communications/ATM cells in the form of calls, recited in col. 16, lines 34-52 to remain within an admissible framework ("bandwidth allocation systems using restrictive routes", recited in col. 14, lines 53-60-the path bandwidth is limited in that scenario) even in a problem situation ("measures implemented to correct violation", recited in col. 8, lines 48-53) ; and setting the limits ("under allocated bandwidth to virtual path", recited in col. 14, lines 1-2 and col. 15, lines 1-8) to the minimum of the values (the under allocated bandwidth is the minimum bandwidth, recited in col. 4, lines 14-23) for the problem situations under investigation.

**Regarding claim 31**, the method ("user communications over an ATM system", recited in col. 5, lines 25-39), wherein at least one further relation is established



("relationship established and established connections between ATM devices", recited in col. 14, lines 44-52) with the aid of an inequality (using required bandwidth from another path", recited in col. 5, lines 25-39), which relation expresses a traffic limitation ("bandwidth threshold and under-allocation is reached", recited in col. 15, lines 44-50) on a link ("under allocated virtual paths", recited in col. 15, lines 44-50) of the network (fig. 2, Telecommunication system 102, recited in col. 14, lines 5-18) and the optimization method (fig. 2, bandwidth allocation system and fig. 3, Bandwidth Management Platform 302, "manages the traffic so the virtual paths do not become overloaded", recited in col. 8, lines 8, lines 16-21-preventing overloading makes the system runs better) is performed using a condition regarding the further relation ("relationship established and established connections between ATM devices", recited in col. 14, lines 44-52).

**Regarding claim 30**, claim 30 is rejected for the same reasons as claim 29 since it has the same limitations as claim 29.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2616

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Medhat et al (US 6,314,103 B1) in view of Subasingha et al (US 5,671,216)

**Regarding claim 15**, Medhat et al. discloses all the subject matter of the claimed invention. Medhat et al. is however silent with respect to the following features: the method, further comprising: determining the proportional traffic volume over the individual links of the network for the pairs of network ingress nodes and network egress nodes; and placing in relation the threshold values for the traffic volume between pairs of network ingress nodes and network egress nodes to the traffic volume on links of the network by using the values for the proportional traffic volume via the individual links. However, Subasingha et al. in a similar field of endeavor discloses the method ("controlling transmission rate", recited in col. 2, lines 1-10), further comprising: determining the proportional traffic volume ("determining control value of transmission rate in accordance with the ratio", recited in col. 5, lines 7-21) over the individual links (fig. 1, Transmission Lines 32, 34, 36, 38 and 40, recited in col. 3 lines 65-67 and col. 4, lines 1-6) the network for the pairs of network ingress nodes (fig. 1, CPE 20, recited in col. 3, lines 46-54) and network egress nodes (fig. 1, CPE 30, recited in col. 3, lines 46-54); and placing in relation the threshold values ("determining control value so that the transmission rate does not exceed that control value", recited in col. 2, lines 11-20) for the traffic volume (traffic volume is dependent up on the calculated control value, recited

in col. 5, lines 32-40) between pairs of network ingress nodes (fig. 1, CPE 20, recited in col. 3, lines 46-54) and network egress nodes (fig. 1, CPE 30, recited in col. 3, lines 46-54) to the traffic volume on links (fig. 1, Transmission Lines 32, 34, 36, 38 and 40, recited in col. 3 lines 65-67 and col. 4, lines 1-6) of the network by using the values for the proportional traffic volume ("control value of transmission rate for traffic shaping", recited in col. 2, lines 32-41) via the individual links (fig. 1, Transmission Lines 32, 34, 36, 38 and 40, recited in col. 3 lines 65-67 and col. 4, lines 1-6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. by using features as taught by Subasingha et al. in order to control transmission bandwidth and provide quality of service (See col. 1-2 lines 62-67 and lines 1-10 for motivation).

10. **Claim 16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Medhat et al (US 6,314,103 B1) in view of Rawlins et al (US 2002/0194362 A1) in further view of Subasingha et al (5,671,216).

**Regarding claim 17**, Medhat et al. discloses the method, further comprising: establishing a relation ("established relationship for connections between devices", recited in column 14, lines 44-52) between the traffic volumes between pairs of network ingress nodes node (fig. 2, Communication Device 102, recited in col. 14, lines 19-31) and network egress nodes (fig. 2, Communication Device 218, recited in col. 14, lines 19-31) and the traffic volume on links ("plurality of virtual paths", recited in col. 2, lines 30-37), of the network (fig. 2, Telecommunication system 102, recited in col. 14, lines 5-

Art Unit: 2616

18); and determining limits for the traffic volume ("determining current usage and availability of virtual circuits/virtual paths", recited in col. 14, lines 53-58-the traffic is carried in the virtual circuit) between the pairs of network ingress nodes (fig. 2, Communication Device 102, recited in col. 14, lines 19-31) and network egress nodes (fig. 2, Communication Device 218, recited in col. 14, lines 19-31) and determining threshold values ("bandwidth limit", recited in column 7, lines 50-53 and "dynamically determine bandwidth, recited in col. 15, lines 25-33) for the traffic routed via the network ingress nodes and for the traffic routed via the network egress nodes by using values for a maximum traffic volume ("expansive route control mode by bandwidth allocation system 104A, 104B and 104C in which all available bandwidth", recited in col. 15, lines 17-25-by dynamically determine the bandwidth for virtual circuits/virtual paths ensures that maximum traffic can be transmitted over the path or link) on the links ("plurality of virtual paths", recited in col. 2, lines 30-37) of the network (fig. 2, Telecommunication system 102, recited in col. 14, lines 5-18), **Regarding claim 18**, the method ("system and method for allocating bandwidth", recited in abstract, lines 1-11), wherein the relation ("established relationship for connections between devices", recited in column 14, lines 44-52) between the traffic volumes between pairs of network ingress nodes (fig. 2, Communication Device 102, recited in col. 14, lines 19-31) and network egress nodes (fig. 2, Communication Device 218, recited in col. 14, lines 19-31) and the traffic volume ("determining current usage and availability of virtual circuits/virtual paths", recited in col. 14, lines 53-58-the traffic is carried in the virtual circuit) on links ("plurality of virtual paths", recited in col. 2, lines 30-37) of the network (fig. 1, Telecommunication

Art Unit: 2616

Systems 102) is established with the aid of inequalities ("use of bandwidth initially allocated to another path to process user communications", recited in col. 4, lines 40-62) , and an optimization method (available system bandwidth not being consumed on a single virtual path", recited in col. 15, lines 16) is performed for the traffic volume on links of the network (fig. 2, Telecommunication system 102, recited in col. 14, lines 5-18), wherein the inequalities being used as auxiliary conditions ("congestions conditions and rearbitrate of user parameters"; recited in col. 8, lines 57-65) for the optimization ("available system bandwidth not being consumed on a single virtual path", recited in col. 15, lines 16).

Medhat et al. teaches all the subject matter of the claimed invention. Medhat et al. is silent with respect to the following features: **regarding claim 16**, the method, wherein two further admissibility checks are performed, wherein one of these admissibility checks is performed using a threshold value for the traffic routed via the network ingress node of the flow, and wherein the other admissibility check is performed using a threshold value for the traffic routed via the network egress node of the flow. However, Rawlins et al. in a similar field of endeavor, discloses the method (fig. 3, Edge based admission control per flow in Disffserv domain, recited in paragraph 0042, lines 1-14), wherein two further admissibility checks ('down stream and upstream admission control", recited in abstract, lines 1-9) are performed, wherein one of these admissibility checks (fig. 3, Edge Router TX 150, "performs down stream admission control", recited in paragraph 0047, lines 4-17 and fig. 5, Admission Control 182, recited in paragraph 0056, lines 7-21) is performed using a threshold value (fig. 5, Downstream Virtual Pools,

Art Unit: 2616

recited in paragraph 0058, lines 1-14) for the traffic ("QoS flow", recited in paragraph 0057, lines 1-10) routed via the network ingress node of the flow (fig. 3, Edge Router TX, "performs down stream admission control", recited in paragraph 0047, lines 4-17) and wherein the other admissibility check ("admission control by Edge Router RX", recited in paragraph 0048, lines 4-12) is performed using a threshold value ("resource availability from resource pool of link", recited in paragraph 0052, lines 1-17) for the traffic (RSVP RESV message", recited in paragraph 0052, lines 7-12 and "QoS flow", recited in paragraph 0063, lines 1-13) routed via the network egress node of the flow (fig. 3, Edge Router RX) Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. by using features as taught by Rawlins et al. in order to provide control admission function at upstream and down stream (See paragraph 0029, lines 1-16 for motivation).

Medhat and Rawlins disclose all the subject matter of the claimed invention with the exception of being silent with regard to the proportional traffic volume over the individual links of the network being used for formulating the relation between the traffic volumes between pairs of network ingress nodes and network egress nodes and the traffic volume on links of the network. However, Subasingha et al. in a similar field of endeavor discloses the proportional traffic volume ("determining control value of transmission rate in accordance with the ratio", recited in col. 5, lines 7-21) over the individual links (fig. 1, Transmission Lines 32, 34, 36, 38 and 40, recited in col. 3 lines 65-67 and col. 4, lines 1-6) of the network (fig. 1, ATM Network, recited in col. 3, lines 46-54) being used for formulating the relation between the traffic volumes ("determining

control value so that the transmission rate does not exceed that control value", recited in col. 2, lines 11-20) between pairs of network ingress nodes (fig. 1, CPE 20, recited in col. 3, lines 46-54) and network egress nodes (fig. 1, CPE 30, recited in col. 3, lines 46-54) and the traffic volume (traffic volume is dependent up on the calculated control value, recited in col. 5, lines 32-40) on links (fig. 1, Transmission Lines 32, 34, 36, 38 and 40, recited in col. 3 lines 65-67 and col. 4, lines 1-6) of the network (fig. 1, ATM Network, recited in col. 3, lines 46-54). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. with Rawlins et al. by using features as taught by Subasingha et al. in order to control transmission bandwidth and provide quality of service (See col. 1-2 lines 62-67 and lines 1-10 for motivation).

11. **Claims 19-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Medhat et al (US 6,314,103 B1) in view of Chartre et al (US 7,180, 866 B1).

**Regarding claims 19-21**, Medhat et al. discloses all the subject matter of the claimed invention with the exception of being silent with respect to the following features: **regarding claim 19**, the method, wherein, if a link drops out, the limits or the threshold values for the admissibility check or admissibility checks are reset with the condition that no packets are transmitted via the failed link, **regarding claim 20**, the method, wherein, if a link drops out, the limits or the threshold values for the admissibility check or admissibility checks are reset with the condition that no packets are transmitted via the failed link, **regarding claim 21**, the method, wherein, if a link

Art Unit: 2616

drops out, the limits or the threshold values for the admissibility check or admissibility checks are reset with the condition that no packets are transmitted via the failed link. However, Chartre et al. in a similar field of endeavor, discloses the following: **regarding claim 19**, the method ("connection recovery", recited in col. 2, lines 18-31) wherein, if a link drops out (fig. 3B, Event Detection Mechanism 382 and Fail Action Mechanism 388, recited in col. 10, lines 28-49 and "link failure", recited in col. 5, line 35-41) the limits ("calculating new routes with capacity", recited in col. 5, lines 38-41) or the threshold values ("calculating new routes with capacity", recited in col. 5, lines 38-41- clearly the new calculated capacity is the threshold and limit) for the admissibility check ("CAC or connection Admission control", recited in col. 5, lines 24-35) or admissibility checks (since new routes capacity is calculated-implies the CAC is reset as recited in col. 5, lines 38-41) are reset with the condition that no packets are transmitted via the failed link ("rerouting to another path in the event of link failure", recited in col. 5, lines 54-65), **regarding claim 20**, the method ("connection recovery", recited in col. 2, lines 18-31), wherein, if a link drops out (fig. 3B, Event Detection Mechanism 382 and Fail Action Mechanism 388, recited in col. 10, lines 28-49 and "link failure", recited in col. 5, line 35-41), the limits ("calculating new routes with capacity", recited in col. 5, lines 38-41) or the threshold values ("calculating new routes with capacity", recited in col. 5, lines 38-41- clearly the new calculated capacity is the threshold and limit) for the admissibility check ("CAC or connection Admission control", recited in col. 5, lines 24-35) or admissibility checks (since new routes capacity is calculated-implies the CAC is reset as recited in col. 5, lines 38-41) are reset with the condition that no packets are transmitted via the



Art Unit: 2616

failed link ("rerouting to another path in the event of link failure", recited in col. 5, lines 54-65), **regarding claim 21**, the method ("connection recovery", recited in col. 2, lines 18-31), wherein, if a link drops out (fig. 3B, Event Detection Mechanism 382 and Fail Action Mechanism 388, recited in col. 10, lines 28-49 and "link failure", recited in col. 5, line 35-41), the limits ("calculating new routes with capacity", recited in col. 5, lines 38-41) or the threshold values ("calculating new routes with capacity", recited in col. 5, lines 38-41-clearly the new calculated capacity is the threshold and limit) for the admissibility check ("CAC or connection Admission control", recited in col. 5, lines 24-35) or admissibility checks (since new routes capacity is calculated-implies the CAC is reset as recited in col. 5, lines 38-41) are reset with the condition that no packets are transmitted via the failed link ("rerouting to another path in the event of link failure", recited in col. 5, lines 54-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. by using features as taught by Chartre et al. in order to provide path optimization in the event of link failure (See col. 2, lines 12-31 for motivation).

12. **Claim 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over Medhat et al, in view of Subasingha et al. as applied to claim 15 above, and further in view of Chartre et al (US 7,180,886 B1).

Medhat and Subasingha disclose all the subject matter of the claimed invention with the exception of being silent in regard to the following features: **regarding claim 22**, , the method, wherein, if a link drops out, the limits or the threshold values for the

Art Unit: 2616

admissibility check or admissibility checks are reset with the condition that no packets are transmitted via the failed link. However, Chartre et al. in a similar field of endeavor, discloses the following: **regarding claim 22** the method ("connection recovery", recited in col. 2, lines 18-31) wherein, if a link drops out (fig. 3B, Event Detection Mechanism 382 and Fail Action Mechanism 388, recited in col. 10, lines 28-49 and "link failure", recited in col. 5, line 35-41) the limits ("calculating new routes with capacity", recited in col. 5, lines 38-41) or the threshold values ("calculating new routes with capacity", recited in col. 5, lines 38-41- clearly the new calculated capacity is the threshold and limit) for the admissibility check ("CAC or connection Admission control", recited in col. 5, lines 24-35) or admissibility checks (since new routes capacity is calculated-implies the CAC is reset as recited in col. 5, lines 38-41) are reset with the condition that no packets are transmitted via the failed link ("rerouting to another path in the event of link failure", recited in col. 5, lines 54-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. with Subasingha et al. by using features as taught by Chartre et al. in order to provide path optimization in the event of link failure (See col. 2, lines 12-31 for motivation).

13. **Claim 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over Medhat et al, in view of Rawlins et al (US 2002/0194362 A1). as applied to claim 16 above, and further in view of Chartre et al (US 7,180,886 B1).

Medhat and Rawlins disclose all the subject matter of the claimed invention with the exception of being silent in regard to the following features: **regarding claim 23**, ,

Art Unit: 2616

the method, wherein, if a link drops out, the limits or the threshold values for the admissibility check or admissibility checks are reset with the condition that no packets are transmitted via the failed link. However, Chartre et al. in a similar field of endeavor, discloses the following: **regarding claim 23**, the method ("connection recovery", recited in col. 2, lines 18-31) wherein, if a link drops out (fig. 3B, Event Detection Mechanism 382 and Fail Action Mechanism 388, recited in col. 10, lines 28-49 and "link failure", recited in col. 5, line 35-41) the limits ("calculating new routes with capacity", recited in col. 5, lines 38-41) or the threshold values ("calculating new routes with capacity", recited in col. 5, lines 38-41- clearly the new calculated capacity is the threshold and limit) for the admissibility check ("CAC or connection Admission control", recited in col. 5, lines 24-35) or admissibility checks (since new routes capacity is calculated-implies the CAC is reset as recited in col. 5, lines 38-41) are reset with the condition that no packets are transmitted via the failed link ("rerouting to another path in the event of link failure", recited in col. 5, lines 54-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. with Rawlins et al. by using features as taught by Chartre et al. in order to provide path optimization in the event of link failure (See col. 2, lines 12-31 for motivation).

14. **Claims 24-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Medhat et al (US 6,314,103 B1) in view of Yin et al (US 6,442,138 B1).

**Regarding claim 24-26**, Medhat et al. teaches all the subject matter of the claimed invention with the exception of being silent with regard to the following features: **regarding claim 24**, the method, wherein limits or threshold values dependent on the class of service of the group of packets are used for at least one admissibility check, **regarding claim 25**, the method, wherein limits or threshold values dependent on the class of service of the group of packets are used for at least one admissibility check, **regarding claim 26**, the method, wherein limits or threshold values dependent on the class of service of the group of packets are used for at least one admissibility check. However, Yin et al. in a similar field of endeavor discloses: **regarding claim 24**, the method ("method and system for controlling connection request", recited in abstract, lines 1-10), wherein limits ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) or threshold values ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) dependent on the class of service ("Table 1 for plurality of service classes, recited in Col. 3, lines 42-63 and "transmission port bandwidth as function of service class", recited in column 4, lines 14-18) of the group of packets ("data flows", recited in Col. 4, lines 35-40) are used for at least one admissibility check (fig. 1, Connection Admission Controller 10, recited in Col. 4, lines 40-51 and "control of data flow by CAC", recited in Col. 3, lines 26-41 ), **regarding claim 25**, the method ("method and system for controlling connection request", recited in abstract, lines 1-10), wherein limits ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) or threshold values ("total resources available and traffic flow

conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) dependent on the class of service ("Table 1 for plurality of service classes, recited in Col. 3, lines 42-63 and "transmission port bandwidth as function of service class", recited in column 4, lines 14-18) of the group of packets ("data flows", recited in Col. 4, lines 35-40) are used for at least one admissibility check (fig. 1, Connection Admission Controller 10, recited in Col. 4, lines 40-51 and "control of data flow by CAC", recited in Col. 3, lines 26-41), **regarding claim 25**, the method ("method and system for controlling connection request", recited in abstract, lines 1-10), wherein limits ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) or threshold values ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) dependent on the class of service ("Table 1 for plurality of service classes, recited in Col. 3, lines 42-63 and "transmission port bandwidth as function of service class", recited in column 4, lines 14-18) of the group of packets ("data flows", recited in Col. 4, lines 35-40) are used for at least one admissibility check (fig. 1, Connection Admission Controller 10, recited in Col. 4, lines 40-51 and "control of data flow by CAC", recited in Col. 3, lines 26-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. by using features as taught by Yin et al. in order to process connection requests at a node of a network for specified class of service (See column 2, lines 29-39 for motivation).

15. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Medhat et al, in view of Subasingha et al. as applied to claim 15 above, and further in view of Yin et al (US 6,442,138 B1).

Medhat and Subasingha disclose all the subject matter of the claimed invention with the exception of being silent in regard to the following features: **regarding claim 27**, the method, wherein limits or threshold values dependent on the class of service of the group of packets are used for at least one admissibility check. However, Yin et al. in a similar field of endeavor discloses: **regarding claim 27**, the method ("method and system for controlling connection request", recited in abstract, lines 1-10), wherein limits ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) or threshold values ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) dependent on the class of service ("Table 1 for plurality of service classes, recited in Col. 3, lines 42-63 and "transmission port bandwidth as function of service class", recited in column 4, lines 14-18) of the group of packets ("data flows", recited in Col. 4, lines 35-40) are used for at least one admissibility check (fig. 1, Connection Admission Controller 10, recited in Col. 4, lines 40-51 and "control of data flow by CAC", recited in Col. 3, lines 26-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. with Subasingha et al. by using features as taught by Yin et al. in order to process connection requests at a node of a network for specified class of service (See column 2, lines 29-39 for motivation).

16. **Claim 28** is rejected under 35 U.S.C. 103(a) as being unpatentable over Medhat et al, in view of Rawlins et al. as applied to claim 15 above, and further in view of Yin et al (US 6,442,138 B1).

Medhat et al. and Rawlins et al. disclose all the subject matter of the claimed invention with the exception of being silent in regard to the following features: **regarding claim 28**, the method, wherein limits or threshold values dependent on the class of service of the group of packets are used for at least one admissibility check. However, Yin et al. in a similar field of endeavor discloses: **regarding claim 28**, the method ("method and system for controlling connection request", recited in abstract, lines 1-10), wherein limits ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) or threshold values ("total resources available and traffic flow conditions", recited in Col. 5, lines 1-2 and Col. 6, lines 1-10 and fig. 3) dependent on the class of service ("Table 1 for plurality of service classes, recited in Col. 3, lines 42-63 and "transmission port bandwidth as function of service class", recited in column 4, lines 14-18) of the group of packets ("data flows", recited in Col. 4, lines 35-40) are used for at least one admissibility check (fig. 1, Connection Admission Controller 10, recited in Col. 4, lines 40-51 and "control of data flow by CAC", recited in Col. 3, lines 26-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Medhat et al. with Rawlins et al. by using features as taught by Yin et al. in order to process connection

requests at a node of a network for specified class of service (See column 2, lines 29-39 for motivation).

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Charzinski et al (US 2003/0002531 A1), Conway et al (US 6,061,331), Yegenoglu et al (US 7,263,069 B2), and Bertin et al (US 5,687,167) are cited to show method and system that are related to claimed invention.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Candal Elpenord whose telephone number is (571) 270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CE

KWANG BIN YAO  
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Kwong Bin Yao', is written over the printed name and title.